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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

EDWARDS, LAURA ESTELLE

ART UNIT	PAPER NUMBER
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1734

DATE MAILED: 07/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

BN
Application No.

10/628,365

Applicant(s)

SANTANDREA ET AL.

Examiner

Laura Edwards

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 April 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 and 13-63 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 59 and 61-63 is/are allowed.
- 6) ☒ Claim(s) 1-11, 13-58, and 60 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Claim Rejections - 35 USC § 112

Claims 1-11, 13-58, and 60 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, page 2, lines 4-5, it is unclear what structure is being referred to when Applicants recite “they can be activated”. The term “they” refers to either the one or more electrode or one or more painting units.

In claim 6, line 2, “the electrodes” should be referred to as the --one or more electrodes-- as recited in claim 1 for consistency purposes.

In claim 7, line 2, “the electrode” should be referred to as the --one or more electrodes-- as recited in claim 1 for consistency purposes.

In claim 9, lines 2-3, Applicants recite, “the one or more electrodes are of any suitably shape for their intended purpose” and it is unclear how this further limits claim 1 which recites said limitation.

In claim 9, line 9, Applicant refers to “at least one switching unit” and it is unclear whether this is a different switching unit or the same one recited in claim 1. Clarification is necessary.

In claim 17, line 3, Applicant refers to “a switching” and it is unclear whether this is a different switching [unit] or the same one recited in claim 1. Clarification is necessary.

In claim 18, line 4, Applicants recite “one of the switching units” and claim 1 only recites a single switching unit. Are plural switching units required or only one switching unit? Clarification is necessary.

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In claim 26, line 2, "said one or more rectilinear conveyors" lack antecedent basis.

In claim 26, page 2, line 9, it is unclear as to the meaning of the phrase, "one rectilinear conveyor in question". One or more rectilinear conveyors is recited earlier in the claim and why is there one in question?

In claim 30, lines 5-6, it is unclear what is meant by the "corresponding conveyor". Is the corresponding conveyor the horizontal conveyor or one of the rectilinear conveyors?

In claim 32, page 11, line 2, "one or more conveyors" refers to one or more rectilinear conveyors?

In claim 32, line 6, "the curved path" lacks antecedent basis.

In claim 33, line 9, Applicants recite "a painting machine" and it is unclear whether this is different or one in the same as the one or more painting units recited at the end of claim 1.

In claim 33, line 10, "electrodes" should be referred to as the --one or more electrodes-- as recited in claim 1 for consistency purposes.

In claim 34, lines 3 and 4, Applicants recite in both instances, "the conveyor" and it is unclear whether "the conveyor" is the --horizontal conveyor--?

In claim 36, page 13, line 4, "the high active position" lacks antecedent basis.

In claim 36, page 13, line 5, "the low and inactive position" lacks antecedent basis.

In claim 37, line 7, Applicants refer to "said projecting appendage" and Applicants should recite --said projecting appendages--.

In claim 39, line 4, "the resting position" lacks antecedent basis.

In claim 42, line 4, "the horizontal axes" lack antecedent basis.

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In claim 49, line 3, Applicant refers to "a switching unit" and it is unclear whether this is a different switching unit or the same one recited in claim 1. Clarification is necessary.

In claim 51, last line, "polarization unit" should be changed to --polarization source-- as recited in claim 49 for consistency purposes.

In claim 56, line 15, "the rod" lacks antecedent basis.

In claim 57, lines 10-14, this language is confusing and it is unclear what Applicants are really attempting to claim with respect to the one or more electrodes and rectilinear conveyor(s).

In claim 60, last line, Applicants provide a comma at the end of the last line such that it is unclear whether language is missing.

Allowable Subject Matter

Claims 59 and 61-63 would be allowable.

Claims 1-11, 13-58, and 60 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

Claims 1-11 and 13-58 would be allowable because there is no teaching or suggestion in the prior art of equipment for electrostatic painting of three-dimensional articles with a flat extension made from dielectric or low-conductivity material, the equipment comprising the combination of a horizontal conveyor made from electrically insulating material, having a resistivity greater than that of the articles to be painting, one or more electrodes placed in isolated positions at suitable distances from each other and from edges of the articles, under the article, while electrostatically charged powdered paints are fed on them, the one or more

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electrodes emitting an electrical field that charges the entire visible surface of the articles, as far as their area of contact with the horizontal conveyor, to an electrical potential of opposite sign to that of the powdered paints, such that the paints completely and uniformly cover visible surface of the articles, the one or more electrodes being of any suitable shape and positioned under an upper run of the horizontal conveyor, the thickness of the conveyor being reduced to cause the least possible attenuation of electrical field generated by the one or more electrodes located near one or more painting units, the one or more electrodes selectively connected to an electrical generator through at least one switching unit such that activation results selectively in accordance with dimensions of the articles to be painted.

Claim 59 would be allowable because there is no teaching or suggestion of equipment for preparing for electrostatic painting three-dimensional articles with a predominantly flat extension, made from dielectric or low-conductivity material, said equipment comprising the combination of a horizontal conveyor made from an electrically insulating material, having a resistivity greater than that of the articles to be painted; one or more electrodes placed in isolated positions, at suitable distances from each other and from the edges of the articles, under the articles, at least while powdered paints electrostatically charged to an electrical potential are being fed on to them, said one or more electrodes emitting an electrical field with characteristics such that the electric field charges the whole visible surface of the articles, as far as their area of contact with the horizontal conveyor, to an electrical potential of opposite sign to that of the powdered paints, in such a way that the powdered paints completely and uniformly cover the visible surface of the articles, wherein the one or more electrodes are of suitable shape and are fixed with a precise distribution to the horizontal conveyor so that they are as close as possible to

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or directly in contact with the articles to be painted, and are connected, by means of extensions or by means of electrical conductors connected to them, to corresponding fixed contacts connected to a lower face and/or to the edges of the horizontal conveyor, where said contacts are distributed in rows for interaction with power supply collectors which are supplied selectively, according to the dimensions of the articles to be painted, by at least one switching unit connected to an electrical generator.

Claim 60 would be allowable because there is no teaching or suggestion of equipment for preparing for electrostatic painting three-dimensional articles with a predominantly flat extension, made from dielectric or low-conductivity material, said equipment comprising the combination of a horizontal conveyor made from an electrically insulating material, having a resistivity greater than that of the articles painted, said horizontal conveyor having a thickness in the range from 0.5 to 3 mm, said conveyor comprising a conveyor belt comprising a polyester fabric core, impregnated with polyurethane material, and coated at least on its upper face with polyurethane material, in such a way that it has a smooth outer surface which is suitable for cleaning with mechanical and pneumatic means which operate on a return run of the belt; and one or more electrodes placed in isolated positions, at suitable distances from each other and from the edges of the articles, under the articles, at least while powdered paints electrostatically charged to an electrical potential are being fed on to them, said one or more electrodes emitting an electrical field with characteristics such that the electric field charges the entire visible surface of the articles, as far as their area of contact with the horizontal conveyor, to an electrical potential of opposite sign to that of the powdered paints, in such a way that the powdered paints completely and uniformly cover the visible surface of the articles.

Claim 61 would be allowable because there is no teaching or suggestion of equipment for preparing for electrostatic painting three-dimensional articles with a predominantly flat extension, made from dielectric or low-conductivity material, said equipment comprising the combination of a horizontal conveyor made from an electrically insulating material, having a thickness in the range from 0.5 to 3 mm, said conveyor comprising a conveyor belt comprising an upper run which slides on and is supported by a flat horizontal bed supported by a frame of said equipment, said bed comprised of an electrically insulating material, which has a resistivity greater than that of the articles and which is coated on the face in contact with said conveyor belt with at least one sheet of the same material as that of the belt; and one or more electrodes placed in isolated positions, at suitable distances from each other and from the edges of the articles, under the articles, at least while powdered paints electrostatically charged to an electrical potential are being fed on to them, said one or more electrodes emitting an electrical field with characteristics such that the electric field charges the whole visible surface of said articles, as far as their area of contact with the conveyor, to an electrical potential of opposite sign to that of the powdered paints, in such a way that the powdered paints completely and uniformly cover the visible surface of the articles.

Claim 62 would be allowable because there is no teaching or suggestion of equipment for preparing for electrostatic painting three-dimensional articles with a predominantly flat extension, made from dielectric or low-conductivity material, said equipment comprising the combination of a horizontal conveyor made from an electrically insulating material, having a resistivity greater than that of the articles to be painted, said horizontal conveyor having a thickness in the range from 0.5 to 3 mm; and one or more electrodes placed in isolated positions,

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at suitable distances from each other and from the edges of the articles, under the articles, at least while powdered paints electrostatically charged to an electrical potential are being fed on to them, said one or more electrodes emitting an electrical field with characteristics such that the electric field charges the whole visible surface of said articles, as far as their area of contact with the conveyor, to an electrical potential of opposite sign to that of the powdered paints, in such a way that the powdered paints completely and uniformly cover the visible surface of the articles, said one or more electrodes are mounted at equal distances from each other and in such a way that they can be activated and de-activated, on one or more rectilinear closed conveyors, said rectilinear conveyors comprising electrically insulating material, positioned longitudinally under an upper run of a belt of said horizontal conveyor, move in the same direction and at the same speed as said horizontal conveyor, and have a length such that they follow the articles positioned above them throughout a painting cycle.

Claim 63 would be allowable because there is no teaching or suggestion of equipment for preparing for electrostatic painting three-dimensional articles with a predominantly flat extension, made from dielectric or low-conductivity material, said equipment comprising the combination of a horizontal conveyor made from an electrically insulating material, having a resistivity greater than that of the articles to be painted, said horizontal conveyor having a thickness in the range from 0.5 to 3 mm; and one or more electrodes placed in isolated positions, at suitable distances from each other and from the edges of the articles, under the articles, at least while powdered paints electrostatically charged to an electrical potential are being fed on to them, said one or more electrodes emitting an electrical field with characteristics such that the electric field charges the whole visible surface of said articles, as far as their area of contact with

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the conveyor, to an electrical potential of opposite sign to that of the powdered paints, in such a way that the powdered paints completely and uniformly cover the visible surface of the articles, said one or more electrodes for polarizing the articles to be painted are fixed on a bed which supports the upper run of the horizontal conveyor and are positioned at isolated points located one after the other in at least one row whose length is suitably greater than the length of a paint chamber and which is orientated along the longitudinal axis of said chamber.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

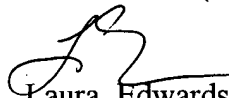
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura Edwards whose telephone number is (571) 272-1227. The examiner can normally be reached on Monday-Friday.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Fiorilla can be reached on (571) 272-1187. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Laura Edwards
Primary Examiner
Art Unit 1734

July 11, 2005